

CLAIMS

1. A method for approximating power consumption of a circuit with a plurality of local clock buffers (LCBs), comprising:

5       inputting a Hardware Descriptive Language (HDL) simulator data of the circuit;

      inputting net capacitance data of the circuit;

      inputting energy model data, wherein the energy model data further comprises extrapolating energy data by 10 increasing or decreasing the number of active LCBs; and

      generating power consumption data from the HDL simulator data, the net capacitance data, and the energy model data.

15       2. The method of Claim 1, wherein each LCB of the plurality of LCBs is at least configured to consume the same amount of power.

3. The method of Claim 2, wherein the energy model 20 data further comprises extrapolating energy data by increasing or decreasing numbers of active input signals to the circuit.

4. The method of Claim 1, wherein the method further 25 comprises inputting template data, wherein the template data

is at least configured to contain relative power consumption data for each LCB of the plurality of LCBs.

5. The method of Claim 4, wherein the relative power consumption data of each LCB of the plurality of LCBs are at least configured to be the same or different.

6. The method of Claim 5, wherein each LCB of the plurality of LCBs is at least configured to consume the same amount of power.

7. The method of Claim 6, wherein the energy model data further comprises extrapolating energy data by increasing or decreasing numbers of active input signals to the circuit.

8. The method of Claim 7, wherein the generating power consumption data is at least configured to utilize the template data.

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9. An apparatus for approximating power consumption of a circuit with a plurality of local clock buffers (LCBs), comprising:

means for inputting HDL simulator data of the circuit;

means for inputting net capacitance data of the circuit;

means for inputting energy model data, wherein the energy model data further comprises extrapolating energy data by increasing or decreasing the number of active LCBs; and

means for generating power consumption data from the HDL simulator data, the net capacitance data, and the energy model data.

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10. The apparatus of Claim 9, wherein each LCB of the plurality of LCBs is at least configured to consume the same amount of power.

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11. The apparatus of Claim 10, wherein the energy model data further comprises means for extrapolating energy data by increasing or decreasing numbers of active input signals to the circuit.

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12. The apparatus of Claim 9, wherein the method further comprises means for inputting template data, wherein the template data is at least configured to contain relative power consumption data for each LCB of the plurality of LCBs.

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13. The apparatus of Claim 12, wherein the relative power consumption data of each LCB of the plurality of LCBs are at least configured to be the same or different.

5 14. The method of Claim 13, wherein each LCB of the plurality of LCBs is at least configured to consume the same amount of power.

10 15. The method of Claim 14, wherein the energy model data further comprises means for extrapolating energy data by increasing or decreasing numbers of active input signals to the circuit.

15 16. The method of Claim 15, wherein the means for generating power consumption data is at least configured to utilize the template data.

20 17. A computer program product for approximating power consumption of a circuit with a plurality of local clock buffers (LCBs), the computer program product having a medium with a computer program embodied thereon, the computer program comprising:

computer code for inputting HDL simulator data of the circuit;

computer code for inputting net capacitance data of the circuit;

computer code for inputting energy model data, wherein the energy model data further comprises extrapolating 5 energy data by increasing or decreasing the number of active LCBs; and

computer code for generating power consumption data from the HDL simulator data, the net capacitance data, and the energy model data.

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18. The computer program product of Claim 17, wherein each LCB of the plurality of LCBs is at least configured to consume the same amount of power.

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19. The computer program product of Claim 18, wherein the energy model data further comprises computer code for extrapolating energy data by increasing or decreasing numbers of active input signals to the circuit.

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20. The computer program product of Claim 17, wherein the method further comprises computer code for inputting template data, wherein the template data is at least configured to contain relative power consumption data for each LCB of the plurality of LCBs.

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21. The computer program product of Claim 20, wherein the relative power consumption data of each LCB of the plurality of LCBs are at least configured to be the same or different.

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22. The computer program product of Claim 21, wherein each LCB of the plurality of LCBs is at least configured to consume the same amount of power.

10 23. The computer program product of Claim 22, wherein the energy model data further comprises computer code for extrapolating energy data by increasing or decreasing numbers of active input signals to the circuit.

15 24. The computer program product of Claim 23, wherein the generating power consumption data is at least configured to utilize the template data.